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  FILE 'CAPLUS, MEDLINE, BIOSIS, SCISEARCH, EMBASE, EUROPATFULL, USPATFULL'
     ENTERED AT 17:35:53 ON 15 DEC 1999
L1         14793 S PACLITAXEL
L2         15348 S POVIDONE
L3         22993 S (OLEIC ACID MONOESTER) OR (STEARIC ACID MONOESTER) OR
(RICINO
L4         56706 S (OXYETHYLENE SORBITOL OLEATE) OR (OLEATE)
L5        491680 S (POLYETHYLENE GLYCOL) OR (GLYCOL)
L6        746722 S (ANHYDROUS ALCOHOL) OR ALCOHOL
L7          6775 S TETRAOLEATE OR TRIOLEATE
L8             0 S L1 AND L2 AND L3 AND L4 AND L5 AND L6
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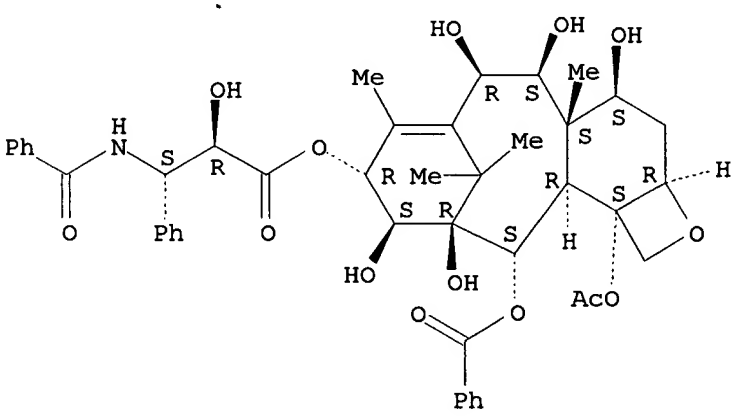
L1 ANSWER 1 OF 55 REGISTRY COPYRIGHT 1999 ACS
RN 232948-34-4 REGISTRY
CN Benzenepropanoic acid, .beta.-(benzoylamino)-.alpha.-hydroxy-, (2aR,4S,4aS,5S,6R,9R,10S,11R,12S,12aR,12bS)-12b-(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-4,5,6,10,11-pentahydroxy-4a,8,13,13-tetramethyl-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl ester, (.alpha.R,.beta.S)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN **10-Deacetyl-9-deketo-9.beta.,14.beta.-dihydroxypaclitaxel**
FS STEREOSEARCH
MF C45 H51 N O14
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Ring System Data

Elemental Analysis EA	Elemental Sequence ES	Size of the Rings SZ	Ring System Formula RF	Ring Identifier RID	RID Occurrence Count
C6	C6	6	C6	46.150.18	3
C3O-C6-C6-C8	OC3-C6-C6-C8	4-6-6-8	C16O	4462.1.1	1

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

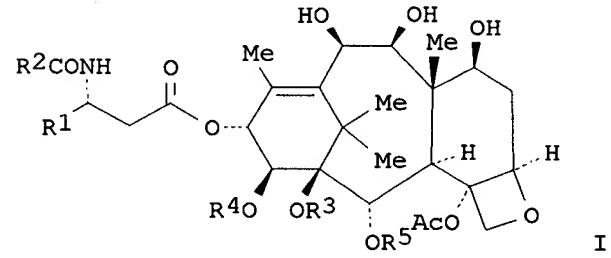
REFERENCE 1

AN 131:116387 CA
TI Preparation of novel water soluble taxane diterpenes as anticancer agents
IN Chai, Ki Byung; Moon, Young Ho; Kim, Nam Du; Ha, Tae Hee; Shin, Jung Ae; Lim, Chang Gi; Kim, Wan Joo; Lee, Gwan Sun; Suh, Kwee Hyun
PA Hanmi Pharmaceutical Co., Ltd., S. Korea
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DT Patent

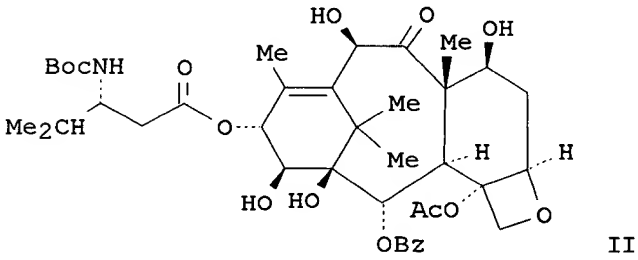
LA English
IC ICM C07D305-14
CC 30-20 (Terpenes and Terpenoids)
Section cross-reference(s): 1
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9937631	A1	19990729	WO 1999-KR39	19990125
	W: AU, CA, CN, JP, RU, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9921877	A1	19990809	AU 1999-21877	19990125
PRAI	KR 1998-2430	19980126			
	WO 1999-KR39	19990125			

GI



I



II

AB The present invention relates to novel taxane terpene compds. I [R1 = (un)substituted, straight or branched alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocycloalkyl, cycloalkenyl or heterocycloalkenyl; R2 = (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, cycloalkenyl, heterocycloalkenyl, aryl or heteroaryl, RO-, RS- or RR6N-; R = (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, cycloalkenyl, heterocycloalkenyl, aryl or heteroaryl; R6 = H, R; RR6 together form a cyclic structure; R3 = H, acyl, alkyl, alkenyl, alkynyl, (un)substituted cycloalkyl, heterocycloalkyl, cycloalkenyl, heterocycloalkenyl, aryl, heteroaryl or a hydroxy protecting group; R4 = H, acyl, alkyl, alkenyl, alkynyl, (un)substituded cycloalkyl, heterocycloalkyl, cycloalkenyl, heterocycloalkenyl, aryl, heteroaryl, or a hydroxy protecting group; R3R4 together form cyclic carbonate, cyclic thiocarbonate or acetonide structure; R5 = aryl] useful as anti-cancer agents and to a process for prepg. I. Thus, I (R1 = CHMe2, R2 = OCMe3, R3 = R4 = H, R5 = Ph) was prepd. in 75% yield via redn. of 10-deacetyl-14.beta.-hydroxypaclitaxel (II) with samarium iodide in aq. THF. I (R1 = CHMe2, R2 = OCMe3, R3 = R4 = H, R5 = Ph) was tested for water soly. (0.2214 mg/mL) and antitumor activity [ED50(test compd.)/ED50(paclitaxel) = 4 (A549 cancer cell line); ED50(test compd.)/ED50(paclitaxel) = 8.2 (SKOV-3 cancer cell line); ED50(test compd.)/ED50(paclitaxel) = 5.5 (SK-MEL-2 cancer cell line); ED50(test compd.)/ED50(paclitaxel) = 3.1 (HCT15 cancer cell line);

ED50(test compd.)/ED50(paclitaxel) = 1.0 (XF498 cancer cell line)].

ST taxane diterpene prepn water soly antitumor activity; paclitaxel water soly analog prepn antitumor activity

IT Antitumor agents
Cytotoxicity
Organic solvents
Reducing agents
Solubility
Stereoselective reduction
(prepn. of novel water sol. taxane diterpenes as anticancer agents)

IT Taxanes
RL: BAC (Biological activity or effector, except adverse); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of novel water sol. taxane diterpenes as anticancer agents)

IT Amides, uses
RL: NUU (Nonbiological use, unclassified); USES (Uses)
(prepn. of novel water sol. taxane diterpenes as anticancer agents)

IT 33069-62-4DP, Paclitaxel, analogs 114977-28-5DP, Docetaxel, analogs
232948-34-4P, 10-Deacetyl-9-deketo-9.beta.,14.beta.-dihydroxypaclitaxel
232948-35-5P 232948-36-6P 232948-37-7P 232948-38-8P 232948-39-9P
232948-40-2P 232948-41-3P 232948-43-5P 232948-44-6P 232948-45-7P
232948-46-8P 232948-47-9P 232948-48-0P 232948-49-1P 232948-50-4P
232948-51-5P 232948-52-6P 232948-53-7P 232948-54-8P 232948-55-9P
232948-56-0P 232948-57-1P 232948-58-2P 232948-59-3P 232948-60-6P
232948-61-7P 232948-62-8P 232948-63-9P 232948-64-0P 232948-65-1P
232948-66-2P 232948-67-3P 232948-68-4P 232948-69-5P 232948-70-8P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of novel water sol. taxane diterpenes as anticancer agents)

IT 64-17-5, Ethanol, uses 67-56-1, Methanol, uses 109-99-9, Tetrahydrofuran, uses 123-91-1, 1,4-Dioxane, uses 7732-18-5, Water, uses
RL: NUU (Nonbiological use, unclassified); USES (Uses)
(prepn. of novel water sol. taxane diterpenes as anticancer agents)

IT 1191-15-7, Diisobutylaluminum hydride 7784-21-6, Aluminum hydride
13813-25-7, Samarium iodide 16940-66-2, Sodium borohydride
16949-15-8,
Lithium borohydride 25895-60-7, Sodium cyanoborohydride 33725-74-5,
Tetrabutylammonium borohydride 156940-43-1 156940-44-2 159143-50-7
185623-21-6 186348-06-1 186348-08-3 186348-22-1 232948-71-9
232948-72-0 232948-74-2 232948-75-3 232948-76-4 232948-77-5
232948-78-6 232948-79-7 232948-80-0 232948-81-1 232948-82-2
232948-83-3 232948-84-4 232948-85-5 232948-86-6 232948-87-7
232948-88-8 232948-89-9 232948-90-2 232948-91-3 232948-92-4
232948-93-5 232948-94-6 232948-95-7 232948-96-8 232948-97-9
232948-98-0 232949-00-7 232949-01-8
RL: RCT (Reactant)
(prepn. of novel water sol. taxane diterpenes as anticancer agents)

ACCESSION NUMBER: 1998:98932 USPATFULL
TITLE: DHA-pharmaceutical agent conjugates of taxanes
INVENTOR(S): Shashoua, Victor E., Brookline, MA, United States
Swindell, Charles S., Merion, PA, United States
Webb, Nigel L., Bryn Mawr, PA, United States
Bradley, Matthews O., Laytonsville, MD, United States
PATENT ASSIGNEE(S): Neuromedica, Inc., Conshohocken, PA, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5795909	19980818
APPLICATION INFO.:	US 1996-651312	19960522 (8)

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Jarvis, William R. A.
LEGAL REPRESENTATIVE: Wolf, Greenfield & Sacks, P.C.
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 27 Drawing Figure(s); 14 Drawing Page(s)
LINE COUNT: 2451
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L44 ANSWER 2 OF 3 USPATFULL
DETD . . . to, acacia, cholesterol, diethanolamine, glyceryl monostearate, lanolin alcohols, lecithin, mono- and di-glycerides, mono-ethanolamine, oleic acid, oleyl alcohol, poloxamer, polyoxyethylene 50 **stearate**, polyoxyl 35 castor oil, polyoxyl 10 oleyl ether, polyoxyl 20 cetostearyl ether, polyoxyl 40 **stearate**, polysorbate 20, polysorbate 40, polysorbate 60, polysorbate 80, propylene glycol diacetate, propylene glycol monostearate, sodium lauryl sulfate, sodium **stearate**, sorbitan mono-laurate, sorbitan mono-**oleate**, sorbitan mono-palmitate, sorbitan monostearate, stearic acid, trolamine, and emulsifying wax. Suspending and/or viscosity-increasing agents that may be used with lipid or liposome solutions include, but are not limited to, acacia, agar, alginic acid, aluminum mono-**stearate**, bentonite, magma, carbomer 934P, carboxymethylcellulose, calcium and sodium and sodium 12, carrageenan, cellulose, dextrin, gelatin, guar gum, hydroxyethyl cellulose, hydroxypropyl methylcellulose, magnesium aluminum silicate, methylcellulose, pectin, polyethylene oxide, polyvinyl alcohol, **povidone**, propylene glycol alginate, silicon dioxide, sodium alginate, tragacanth, and xanthum gum.

DETD . . . busulfan, chlorambucil, melphalan (e.g., PAM, L-PAM or phenylalanine mustard), mercaptopurine, mitotane, procarbazine hydrochloride dactinomycin (actinomycin D), daunorubicin hydrochloride, doxorubicin hydrochloride, **taxol**, mitomycin, plicamycin (mithramycin), aminoglutethimide, estramustine phosphate sodium, flutamide, leuprolide acetate, megestrol acetate, tamoxifen citrate, testolactone, trilostane, amsacrine (m-AMSA), asparaginase (L-asparaginase). . .

DETD . . . be used for administration of gas-filled liposomes include, but are not limited to, almond oil, corn oil, cottonseed oil, ethyl **oleate**, isopropyl myristate, isopropyl palmitate, mineral oil, myristyl alcohol, octyl-dodecanol, olive oil, peanut oil, persic oil,

sesame oil, soybean oil, and. . .

. . CLM What is claimed is:

. . . ansamitocin, bleomycin, cytosine arabinoside, arabinosyl adenine, mercaptopolylysine, vincristine, busulfan, chlorambucil, melphalan, mercaptopurine, mitotane, procarbazine hydrochloride dactinomycin, daunorubicin hydrochloride, doxorubicin hydrochloride, **taxol**, mitomycin, plicamycin, arminoglutethimide, estramustine phosphate sodium, flutamide, leuprolide acetate, megestrol acetate, tamoxifen citrate, testolactone, trilostane, amsacrine, asparaginase, etoposide, interferon .alpha.-2a,. . .

. . . ansarnitocin, bleomycin, cytosine arabinoside, arabinosyl adenine, mercaptopolylysine, vincristine, busulfan, chlorambucil, melphalan, mercaptopurine, mitotane, procarbazine hydrochloride dactinomycin, daunorubicin hydrochloride, doxorubicin hydrochloride, **taxol**, mitomycin, plicamycin, aminoglutethimide, estramustine phosphate sodium, flutamide, leuprolide acetate, megestrol acetate, tamoxifen citrate, testolactone, trilostane, amsacrine, asparaginase, etoposide, interferon .alpha.-2a,. . .

ACCESSION NUMBER: 1998:72264 USPATFULL

TITLE: Therapeutic drug delivery systems

INVENTOR(S): Unger, Evan C., Tucson, AZ, United States
Fritz, Thomas A., Tucson, AZ, United States
Matsunaga, Terry, Tucson, AZ, United States
Ramaswami, VaradaRajan, Tucson, AZ, United States
Yellowhair, David, Tucson, AZ, United States
Wu, Guanli, Tucson, AZ, United States

PATENT ASSIGNEE(S): ImaRx Pharmaceutical Corp., Tucson, AZ, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5770222	19980623
APPLICATION INFO.:	US 1995-472305	19950607 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1993-76250, filed on 11 Jun 1993, now patented, Pat. No. US 5580575 which is a continuation-in-part of Ser. No. US 1991-716899, filed on 18 Jun 1991, now abandoned And a continuation-in-part of Ser. No. US 1991-717084, filed on 18 Jun 1991, now abandoned which is a continuation-in-part of Ser. No. US 1990-569828, filed on 20 Aug 1990, now patented, Pat. No. US 5088499 , said Ser. No. US 19 -716899 which is a continuation-in-part of Ser. No. US 1990-569828, filed on 20 Aug 1990, now patented, Pat. No. US 5088499 which is a continuation-in-part of Ser. No. US 1989-455707, filed on 22 Dec 1989, now abandoned

DOCUMENT TYPE: Utility

PRIMARY EXAMINER: Kishore, Gollamudi S.

LEGAL REPRESENTATIVE: Woodcock Washburn Kurtz Mackiewicz & Norris LLP

NUMBER OF CLAIMS: 75

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 32 Drawing Figure(s); 21 Drawing Page(s)

LINE COUNT: 3404

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L44 ANSWER 3 OF 3 USPATFULL

SUMM 23. EXAMPLE: **TAXOL** FORMULATION

DETD . . . (e.g., pregelatinised maize starch, polyvinylpyrrolidone or hydroxypropyl methylcellulose); fillers (e.g., lactose, microcrystalline cellulose or calcium hydrogen phosphate); lubricants (e.g., magnesium

stearate, talc or silica); disintegrants (e.g., potato starch or sodium starch glycolate); or wetting agents (e.g., sodium lauryl sulphate). The p-GlcNAc. . .

DETD . . . making possible the formulation and delivery of some drugs that have heretofore been difficult to formulate and deliver. For example, **taxol**, a microtubule spindle inhibitor drug used to treat breast cancer, is hydrophobic and requires the addition of polyoxyethylated castor oil in order to solubilize it as a liquid infusion for intravenous delivery. The hydrophobic nature of **taxol** makes it an ideal compound for formulation with p-GlcNAc polymer materials for topical controlled release delivery. The Example presented in Section 23, below, presents such a p-GlcNAc/**taxol** formulation. Additional targets for p-GlcNAc anti-tumor systems include, but are not limited to, skin, GI tract, pancreatic, lung, breast, urinary. . .

DETD . . . Cytorhodin, Epirubicin, esorubicin, Idarubicin, Iodo-doxorubicin, Marcellomycin, Menaril, Morpholino anthracyclines, Pirarubicin, and SM-5887; microtubule spindle inhibitors, such as Amphethinile, Navelbine, and **Taxol**; the alkyllysophospholipids, such as BM41-440, ET-18-OCH3, and Hexacyclophosphocholine; metallic compounds, such as Gallium Nitrate, CL286558, CL287110, Cycloplatam, DWA2114R, NK121, Iproplatin,. . .

DETD . . . of, or following surgery. Examples of such drugs include, for example, the chemotherapeutic agents 5'-fluorouracil, mitomycin, cisplatin and its derivatives, **taxol**, doxorubicin, actinomycin, bleomycins, daunomycins, and methamycins.

DETD . . . database, as well as reports of pharmacological studies such as "A MultiCenter Randomized Trial of Trial of Two Doses of **Taxol** " Nabholtz, J. M., Gelmon, K., Bontenbal, M. et al. Medical Education Services Monograph--1994 Bristol-Myers Squibb Company Publication; "Randomized Trial of Two Doses of **Taxol** in Metastatic Breast Cancer: An Interim Analysis" Nabholtz, J. M., Gelmon, K., Bontenbal, M., et al. 1993, Proc. Am. Clin.. . .

DETD . . . were placed in dorsal recumbency, and all the hair from the abdomen was removed. The abdomen was then scrubbed with **povidone** -iodine and 70% isopropyl alcohol and draped for aseptic surgery.

DETD . . . abdomen was aseptically prepared for surgery. The abdomen was clipped and then a gross and sterile scrub was performed using **povidone** iodine and 70% isopropyl alcohol. The animal was then draped for surgery. A 12 cm ventral midline celiotomy was made.. . .

DETD 23. EXAMPLE: **TAXOL** FORMULATION

DETD Presented in this Example is a method of preparing various concentrations of **taxol**-pGlcNAc formulations.

DETD . . . was scraped gently from the membrane and placed into a 2 ml cryovial. At this time, the appropriate amount of **taxol** (6 mg/ml) and H.sub.2 O (deionized and distilled) was added to the p-GlcNAc in the cryovial.

DETD For example, as shown in Table XIV, below, to prepare a 1.times. disk containing 0.21 mg of **taxol**, 35 .mu.l of **taxol** (6 mg/ml **taxol** solution) and 105 .mu.l of H.sub.2 O were added. The cryovial was then securely capped and the contents vortexed until. . .

DETD Similarly, a 2.times. formulation containing 0.42 mg of **taxol**, was prepared as above, except that 70 .mu.l of **taxol** (mg/ml **taxol** solution) and 105 .mu.l H.sub.23 O was added to the p-GlcNAc in the cryovial. Table XIV, below, summarizes various **taxol**/p-GlcNAc formulations.

DETD TABLE XIV

Dose of **Taxol**	p-GlcNAc	H.sub.2 O added

Controls - No **Taxol**
7 ml p-GlcNAc
140 .mu.l H.sub.2 O
1X - 35 .mu.l (0.21 mg) **Taxol**
7 ml p-GlcNAc
105 .mu.l H.sub.2 O
2X - 70 .mu.l (0.42 mg) **Taxol**
7 ml p-GlcNAc
70 .mu.l H.sub.2 O
4X - 140 .mu.l (0.84 mg) **Taxol**
7 ml p-GlcNAc
0 .mu.l H.sub.2 O

CLM What is claimed is:
3. The anti-tumor drug/poly-.beta.-1.fwdarw.4-N-acetylglucosamine composition of claim 1 or 2 wherein the anti-tumor drug is 5'-fluorouracil, mitomycin, cis-platin, **taxol**, adriamycin, actinomycin, a bleomycin, a daunomycin or a methamycin anti-tumor drug.

5. The anti-tumor drug/poly-.beta.-1.fwdarw.4-glucosamine composition of
claim 4 wherein the anti-tumor drug is 5'-fluorouracil, mitomycin, cis-platin, **taxol**, adriamycin, actinomycin, a bleomycin, a daunomycin or a methamycin anti-tumor drug.

ACCESSION NUMBER: 97:47398 USPATFULL
TITLE: Methods and compositions for poly-.beta.-1-4-N-acetylglucosamine chemotherapeutics

INVENTOR(S): Vournakis, John N., Hanover, NH, United States
Finkielsztein, Sergio, Chestnut Hill, MA, United States
Pariser, Ernest R., Belmont, MA, United States
Helton, Mike, Memphis, TN, United States
PATENT ASSIGNEE(S): Marine Polymer Technologies, Inc., Danvers, MA, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5635493	19970603
APPLICATION INFO.:	US 1995-471545	19950606 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-347911, filed on 1 Dec 1994 which is a continuation-in-part of Ser. No. US 1993-160569, filed on 1 Dec 1993
DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Kight, John
ASSISTANT EXAMINER: Fonda, Kathleen Kahler
LEGAL REPRESENTATIVE: Pennie & Edmonds
NUMBER OF CLAIMS: 16
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 73 Drawing Figure(s); 58 Drawing Page(s)
LINE COUNT: 3937
CAS INDEXING IS AVAILABLE FOR THIS PATENT.